

All District Engineers, Walter S. Kos, & Thomas R. Walker

William T. Sunley

Special Provision for Bituminous Concrete Class I,
Type 3 CL (Low ESAL)

April 23, 1999

This special provision was developed by the Bureau of Materials and Physical Research. It specifies the design of Bituminous Concrete Surface Course Class I, Type 3, Mixture CL.

The districts should include the BDE Check Sheet with the applicable BDE Special Provisions marked for the July 30, 1999 letting and for subsequent lettings. The Project Development and Implementation Section will include the paper copy in the contract.

This special provision will be transferred through Microsoft Exchange to the district offices on April 23, 1999.

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BITUMINOUS CONCRETE CLASS I, TYPE 3CL (Low ESAL) (BDE)

Effective: July 1, 1999

Description. This Special Provision establishes the specification for the design of Bituminous Concrete Surface Course Class I, Type 3, Mixture CL. The work shall be according to the applicable portions of Section 406 of the Standard Specifications except as follows:

Materials.

- (a) Coarse Aggregate. Coarse aggregate shall be according to Article 1004.03 except that gravel and Class C Quality or better coarse aggregate may be used.
- (b) Bituminous Materials. AC Grade shall be AC-10 (PG 58-22), except that designs including more than 20% RAP shall use AC-5 (PG 52-28).

RAP Designs. Revise the last sentence of the second paragraph in Article 406.10(c) to read, "The amount of RAP included in the mixture shall not exceed 30 percent."

Mixture Criteria. Revise Article 406.13(a) to read:

- “(a) Mixture Composition. The Job Mix Formula shall produce a mixture falling within the following limits:

Sieve	Percent Passing 1/
12.5 mm (1/2")	100
9.5 mm (3/8")	95 -100
4.75 mm (#4)	52 - 80
2.36 mm (#8)	38 - 65
600 µm (#30)	< 0.5 P#4
75 µm (#200)	4.0 - 8.0

Bitumen 2/	4.0 - 8.0
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1/ Based on % Total Aggregate Weight

2/ Based on % of Total Mixture Weight”

Revise Article 406.13(d)(3) to read:

“(3) For Class I, Type 3CL. The procedure used for Class I, Type 3CL shall be 50-blow Marshall mix design.”

VMA (Voids in the Mineral Aggregate) (min.)	Air Voids (%)	VFA (Voids Filled with Asphalt)	Stability (min.) kN (lbs.)	Flow Range 0.25 mm (0.01 inch)
13.5%	2.5 - 3.5%	72 - 82%	5.3 (1,200)	8 - 16

Compaction. Revise Table 1 in Article 406.16: For Class I, Type 3 under "Density Requirement", delete "To satisfaction of the Engineer" and replace with "As specified for Class I, Type 2, Article 406.16(b)".

Basis of Payment. This work will be paid for at the contract unit price per metric ton (ton) for BITUMINOUS CONCRETE SURFACE COURSE, Class I, Type 3, Mixture C (Low ESAL).